

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented) A system for reading a magnetic medium having several tracks of data which can be read in parallel, and comprising a detection device having at least as many detectors as there are tracks, making it possible to read simultaneously and at regular intervals a sample of data on each track, said detection device having a parallel/ series shift register receiving in parallel the samples of data read by the detectors at each read time and retransmitting them in series form, the system comprising:

a processing circuit configured to receive the sample of data to be processed from each track, together with a sample of data from a first adjacent track and a sample of data from a second adjacent track, and to calculate a cross-talk affecting the sample of data to be processed due to the adjacent tracks;

an integration circuit configured to receive and integrate the cross-talk, obtained at each read time and at subsequent read times; and

a relative track-following control circuit configured to receive a result of integration of the integrator circuit (I1) and to supply a track-following control signal for the detection device, wherein said processing circuit comprises means for multiplying the value of the sample to be processed by +1 when the sample of the first adjacent track is negative and the sample of the second adjacent track is positive, by -1 when the sample of the first adjacent track is positive and the sample of the second adjacent track is negative, or by 0 when the samples of the adjacent tracks are of the same sign.

Claim 2 (Previously Presented) The system as claimed in claim 1, wherein the data medium is read using a light beam transmitted to the detection device after reading

the data medium, and the relative track-following control circuit is configured to control a device for deflecting the light beam depending on the position of the detection device.

Claim 3 (Previously Presented) The system as claimed in claim 1, wherein the detection device comprises a greater number of detectors than there are tracks to read and the detection device further comprises:

an absolute position detection circuit configured to identify the track read by each detector of the detection device; and

a central control circuit configured to control the operation of said processing circuit, said integration circuit, said relative track-following control circuit, and the absolute position detection circuit.

Claim 4 (Previously Presented) The system as claimed in claim 3, further comprising:

means for identifying, in the data read by each detector, one or more track identity data items.

Claim 5 (Previously Presented) The system as claimed in claim 4, wherein the tracks of the data medium comprise preamble zones containing identification data.

Claim 6 (Previously Presented) The system as claimed in claim 5, wherein the preamble zones of the various tracks can be read simultaneously.

Claim 7 (Previously Presented) The system as claimed in claim 6, wherein the preamble zones have components which are positive or negative depending on the tracks,

and a circuit is provided configured to detect the tracks with positive continuous components and those with negative continuous components.

Claim 8 (Previously Presented) The system as claimed in claim 7, wherein the tracks of the recording medium are distributed in alternating groups of positive and negative components.

Claim 9 (Previously Presented) The system as claimed in claim 8, wherein groups of four tracks of positive components which alternate with groups of four tracks of negative components comprise:

a first summation circuit configured to add the signs of the samples detected by a first group of four detectors and the inverse of the signs detected by a second group of four detectors;

a second addition circuit configured to add the signs of the samples detected by the first two detectors of the first group of detectors and the last two detectors of the second group and the inverse of the signs of the samples detected by the other detectors of these groups; and

a table indicating the numbers of the tracks detected by said detectors according to the results of the additions carried out by the addition circuits.

Claim 10 (Cancelled)